REMARKS

Claims 1-7 and 15 are pending.

THE DOUBLE PATENTING REJECTION

Claims 1-3, 5-7, and 15 were rejected on the grounds of obviousness-type double patenting over claims 10 and 11 of U.S. Pat. No. 6,277,205. The Examiner cites claims 10 and 11 and alleges that, although the conflicting claims are not identical, they are not patentably distinct from the presently pending claims.

Each of the rejected claims recites a method of washing a photomask comprising: removing organic matter and metal impurities present on the surface of a photomask; removing foreign matter adhering to said surface of said photomask with H_2 gas dissolved water; and drying said photomask, wherein said photomask is a phase-shift mask including halftone mask, said H_2 gas dissolved water contains ammonia and the concentration of said ammonia is not more than 1%.

The proper standard for determining whether a claim should be rejected for reasons of obviousness-type double patenting is set forth in the MPEP § 804.II.B.1. As explained there, an analysis of obviousness-type double patenting "parallels the guidelines for analysis of a 35 U.S.C. § 103 obviousness determination." Specifically, the prevailing test on the issue of obviousness-type double patenting is whether any claim in the application defines merely an obvious variation of an invention claimed in the patent. Any obvious-type double patenting rejection should make clear, first, the differences between the inventions defined by the conflicting claims, and, second, the reasons why a person of ordinary skill in the art would conclude that the invention defined in the

claim in issue is an obvious variation of the invention defined in a claim in the patent. *See* MPEP § 804.II.B.1. The Examiner has not set forth any reasoning why one of ordinary skill in the art, having reviewed patent claim 11 of the '205 patent, would have considered pending claims 1-3, 5-7, and 15 an obvious variation of the patent claim.

Accordingly, the Final Office Action of May 20, 2003, does not present a *prima facie* case of obviousness-type double patenting that meets the requirements of *Graham v. John Deere* and MPEP §§ 706.02(j) and 804.II.B.1. The burden remains with the Patent Office to either affirmatively demonstrate why the Applicants are not entitled to a patent or issue an allowance of the application. It is accordingly submitted that the Examiner has not met the minimal threshold for establishing a *prima facie* case of obviousness under the doctrine of obviousness-type double patenting. Withdrawal of this rejection is requested.

THE 35 U.S.C. § 102 REJECTIONS

Claims 1-7 and 15 are again being rejected under 35 U.S.C. § 102(e) as being anticipated **Nagamura et al.** (U.S. Patent No. 6,277,205) or under 35 U.S.C. § 102(a)/(e) by a divisional to **Nagamura et al.** (U.S. Patent No. 6,071,376).

The previously submitted arguments traversing the 35 U.S.C. 102(a)/102(e) rejection over **Nagamura et al.** (U.S. Pat. No. 6,071,376) and the 35 U.S.C. 102(e) rejection over the divisional thereto (U.S. Pat. No. 6,277,205), on the ground that such prior art did not disclose the claimed sequence of "first to third" steps is hereby **withdrawn** as being moot in view of the amendment of the claims herein to expressly remove the claim recitation of the "first to third" steps. Accordingly, the claims presently cover a method of washing a photomask *comprising* the recited

steps. In accord with the open-ended "comprising" recitation, the claims do not exclude, for example, any additional, unrecited elements or method steps before, after, or interposed between the recited steps.

35 U.S.C. § 102(a) requires that the invention "was known or used *by others* in this country, or patented or described in a printed publication in this or a foreign country, *before the invention thereof by the applicant for patent*" and 35 U.S.C. § 102(e) requires that the invention "was described in . . . an application for patent . . . *by another* filed in the United States before the invention thereof by the applicant for patent". In accord with the corrected Declaration filed herewith, wherein an incorrectly named co-inventor (Masaki Kusuhara) was removed and the correct co-inventor (Hozumi Usui) properly identified, the asserted rejections over **Nagamura et al.** cannot stand as the requirements of 35 U.S.C. §§ 102(a) & (e) are not satisfied thereby. The inventive entities of the present application and **Nagamura et al.** are, in fact, identical. **Nagamura et al.** is not, therefore, an invention "by another" or to "others".

Moreover, the Japanese Priority Document for **Nagamura et al.** ('376) (JP 9-331797 filed on Dec. 2, 1997) was published as JP 11-167195 on June 22, 1999. Therefore, JP 11-167195 is not available as prior art under 35 U.S.C. 102(a) since it was not published before the invention date of the present application (May 20, 1999, based on the filing date of the present application in Japan) and was not known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for patent".

Accordingly, the 35 U.S.C. § 102(e) anticipation rejection of claims 1-7 and 15 over **Nagamura et al.** (U.S. Patent No. 6,277,205) and the 35 U.S.C. § 102(a)/(e) anticipation

rejection of the same claims over **Nagamura et al.** (U.S. Patent No. 6,071,376) are overcome and withdrawal thereof is requested.

THE 35 U.S.C. § 103 REJECTION

Claims 1-7 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Yeol et al. (U.S. Patent No. 6,039,815).

Yeol et al. are cited as teaching a cleaning apparatus for semiconductor processing comprising the steps of dissolving an ozone gas and a hydrogen gas in water to produce ozone water and hydrogen water, the ozone water being mixed with an acidic solution to form an oxidizing acidic cleaning solution and the hydrogen water being mixed with an alkaline solution to produce an alkaline cleaning solution. Cleaning is performed first with the oxidizing acidic cleaning solution and subsequently with the alkaline cleaning solution (citing col. 2, lines 43-67; col. 3, lines 1-10 and 40-50). After cleaning, the substrate is dried (citing col. 9, lines 58-62).

The Examiner alleges that the above teaching "reads on the three step cleaning process, as instantly claimed".

In the Examiner's "Response to Arguments" on page 7 of Paper No. 7 of the parent application, the Examiner responded to the above argument by stating that "[w]ith all due respect, Applicants attention is drawn to the teaching of Nagamura, wherein all the above limitations are recited and to the teaching of Yeol, which anticipates the instant claims for reasons as detailed above in the instant Office Action". The Examiner cites col. 10, lines 41-42 of **Yeol et al.** as providing a working example wherein "the concentration of ammonia corresponds to the instantly claimed value".

Applicants submit that **Yeol et al.** do not teach or suggest the recited step of removing foreign matter adhering to a surface of the photomask with H_2 gas dissolved water, the H_2 gas dissolved water containing ammonia, *a concentration of which is not more than 1%* and therefore do not teach or suggest each and every element of the claimed invention as required by 35 U.S.C. § 103.

Reconsideration and withdrawal of this 35 U.S.C. § 103 rejection is requested on at least the above noted grounds. If the Examiner disagrees with Applicant's assessment of **Yeol et al.**, the Examiner is kindly requested to provide additional evidentiary support for the Examiner's position that the cited passage of **Yeol et al.** teaches the claimed concentration, as alleged.

Respectfully submitted,
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